**WHAT IS CLAIMED:**

1. A router for a radio network that includes a plurality of other routers, said router comprising:

a memory storing a routing table;

a receiver for receiving link state information from the network; and

a processor for (i) determining, responsive to the received link state information forwarded to the router, a status of connections in the network, (ii) generating network topology information based on the determined connection status information, (ii) placing the generated network topology information in said routing table, and (iv) transmitting the network topology information in the routing table to at least one other router in the network.

2. A router according to Claim 1, wherein the processor transmits the network topology information to the at least one other router in the network at a predetermined cycle.

3. A router according to Claim 1, further comprising a transmitter for transmitting a message including the network topology information retrieved from said routing table.

4. A method of distributing network topology information in a radio network that includes a plurality of other routers comprising the steps of:

receiving link state information of the network that is forwarded to each router;

determining connections of devices in the network in the receiving router responsive to the received link state information forwarded to the router;

collecting the determined device connection information to generate network topology information in the receiving router;

placing the generated network topology information in a routing table of the receiving router; and

retrieving the network topology information from the routing table.

5. A method according to Claim 4, wherein the network topology information is generated periodically.

6. A method according to Claim 4, further comprising the step of transmitting a message by the receiving router including the network topology information retrieved from the routing table.

7. A method according to Claim 4, wherein the link

state information is transmitted to the plurality of routers at predetermined times.

8. A method according to Claim 4, wherein the link state information is forwarded to the plurality of routers periodically.

9. A routing system in a radio network having plural routers, comprising:

a plurality of routers each including:

a receiver for receiving link state information from the network in a message issued to the plurality of routers;

a processor in each router, responsive to the received link state information, for (i) determining router connection information in the network, (ii) collecting the determined router connection information (iii) generating network topology information from the collected router connection information, (iv) storing the generated network topology information in a routing table, and (v) retrieving the network topology information in the routing table and forming it into a link state message to be broadcast to at least one other router in the network.

10. A routing system according to Claim 9, wherein each processor periodically generates the network topology

information.

11. A routing system according to Claim 9, further comprising a transmitter in each router for transmitting the link state message including the network topology information retrieved from the routing table.

12. A routing system according to Claim 11, wherein the transmitter transmits the link state information message to a plurality of routers at predetermined times.

13. A routing system according to Claim 11, wherein the transmitter periodically broadcasts the link state information message to the plurality of routers.

14. A routing system according to Claim 9, wherein the transmitter transmits the link state information message to the plurality of routers after its corresponding receiver receives the link state information from the network.

15. Computer executable software code stored on a computer readable medium, the code for distributing network topology information in a radio network that includes a plurality of routers, the code comprising:

code for receiving link state information of the

network that is forwarded to each router;

code for determining connections of devices in the network in the receiving router responsive to the received link state information forwarded to the router;

code for collecting the determined device connection information to generate network topology information in the receiving router;

code for placing the generated network topology information in a routing table of the receiving router; and

code for retrieving the network topology information from the routing table.

16. A router for a radio network that includes a plurality of other routers, said router comprising:

means for storing a routing table;

means for receiving link state information from the network;

means, responsive to the received link state information forwarded to the router, for determining a status of connections in the network;

means for generating network topology information based on the determined connection status information;

means for placing the generated network topology information in said routing table; and

means for transmitting the network topology

information in the routing table to at least one other router in the network.

17. A routing system in a radio network having plural router, comprising a plurality of routers, comprising a plurality of router, each router including:

means for receiving link state information from the network in a message issued to the plurality of routers;

means for determining router connection information in the network;

means for collecting the determined router connection information;

means for generating network topology information from the collected router connection information;

means for storing the generated network topology information in a routing table; and

means for retrieving the network topology information in the rating table and forming it into a link state message to be broadcast to at least one other router in the network.

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